

## Sequence Listing

JC17 Rec'd PCT/PTO 20 JUN 2005

<110> Universität Leipzig  
<120> Method and Means for Determining Specific Conditions or Changes in  
the Uterine Epithelium and in the Epithelium of other Organs  
<130> 00401P0004WOUS  
<150> DE10260556.4  
<151> 2002-12-21  
<150> DE10325637.7  
<151> 2003-06-06  
<150> DE10325636.9  
<151> 2003-06-06

<160> 18

<210> 1  
<211> 20  
<212> DNA  
<213> artificial  
<220>  
<223> Primer 1 ( $\beta$ hCG gesamt)  
<301> Lindholm-Miller A.K. Labenz C.J., Ramey J., Bedows E., Ruddon R.W.  
<302> Human Chorionic Gonadotropin- $\beta$ -Gene Expression in First Trimester  
Placenta  
<303> Endocrinology  
<304> 138  
<305> 12  
<306> 5459-5465  
<307> 1997

<400>  
tcacttcacc gtggtctccg

20

<210> 2  
<211> 20  
<212> DNA  
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<220>  
<223> Primer 2 ( $\beta$ hCG gesamt)  
<301> Lindholm-Miller A.K. Labenz C.J., Ramey J., Bedows E., Ruddon R.W.  
<302> Human Chorionic Gonadotropin- $\beta$ -Gene Expression in First Trimester  
Placenta  
<303> Endocrinology  
<304> 138  
<305> 12  
<306> 5459-5465  
<307> 1997

<400> 2  
tgcagcacgc gggatcatggt

20

<210> 3  
<211> 23  
<212> DNA  
<213> artificial  
<220>  
<223> Primer 3 ( $\beta$ hCG  $\beta$ 7,  $\beta$ 6,  $\beta$ 6e)

<400> 3  
cactgagggg agaggactgg ggt

23

<210> 4  
 <211> 23  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 4 ( $\beta$ hCG  $\beta$ 5,  $\beta$ 8,  $\beta$ 3)

<400> 4  
 cagtgaagg agagggctgg ggc

23

<210> 5  
 <211> 861  
 <212> DNA  
 <213> human  
 <220>  
 <223>  $\beta$ hCG  $\beta$ 7 cDNA-Sequenz

<400>5  
 agcactttcc tcgggtcacg gcctcctcct gggtcccaag accccaccat aggcagaggc 60  
 aggccttcct acaccctact ctctgtgcct ccagcctcga ctagtcccta gcactcgacg 120  
 actgagtctc agaggtcact tcaccgtggt ctccgcctca tccttggcgc tagaccactg 180  
 aggggagagg actggggtgc tccgctgagc cactcctgtg cctccctggc cttgtctact 240  
 tctcgcccc cgaagggtta gtgtccagct cactccagca tcctacaacc tcctgggtggc 300  
 cttgacgccc ccacaaaccc gaggtataaa gccaggtaga ccaggcaggg gacgcaccaa 360  
 ggatggagat gttccagggg ctgctgctgt tgctgctgct gagcatgggc gggacatggg 420  
 catccaagga gatgcttcgg ccacgggtgc gccccatcaa tgccaccctg gctgtggaga 480  
 aggagggctg ccccggtgtgc atcacggtca acaccaccat ctgtgccggc tactgcccc 540  
 ccatgacccg cgtgctgcag ggggtcctgc cggccctgcc tcaggtggtg tgcaactacc 600  
 gcgatgtgcg cttcgagtcc atccggctcc ctggctgccc gcgcggcgtg aaccccggtg 660  
 tctcctacgc cgtggctctc agctgtcaat gtgcactctg ccgccgcagc accactgact 720  
 gcgggggtcc caaggaccac cccttgacct gtgatgacct ccgcttccag gcctcctctt 780  
 cctcaaaggc ccctcccccc agccttccaa gtccatcccc actcccgggg ccctcggaca 840  
 ccccgatcct ccacacaataa a 861

<210> 6  
 <211> 861  
 <212> DNA  
 <213> human  
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 <223>  $\beta$ hCG  $\beta$ 6 cDNA-Sequenz

<400>6  
 agcactttcc tcgggtcacg gcctcctcct gggtcccaag accccaccat aggcagaggc 60  
 aggccttcct acaccctact ctctgtgcct ccagcctcga ctagtcccta acactcgacg 120  
 actgagtctc agaggtcact tcaccgtggt ctccgcctca tccttggcgc tagaccactg 180  
 aggggagagg actggggtgc tccgctgagc cactcctgtg cctccctggc cttgtctact 240  
 tctcgcccc cgaagggtta gtgtcgagct cactccagca tcctacaacc tcctgggtggc 300  
 cttgccgccc ccacaaaccc gaggtatgaa gccaggtaga ccaggcaggg gacgcaccaa 360  
 ggatggagat gttccagggg ctgctgctgt tgctgctgct gagcatgggc gggacatggg 420  
 catccaagga gccacttcgg ccacgggtgc gccccatcaa tgccaccctg gctgtggaga 480  
 aggagggctg ccccggtgtgc atcacggtca acaccaccat ctgtgccggc tactgcccc 540  
 ccatgacccg cgtgctgcag ggggtcctgc cggccctgcc tcaggtggtg tgcaactacc 600  
 gcgatgtgcg cttcgagtcc atccggctcc ctggctgccc gcgcggcgtg aaccccggtg 660  
 tctcctacgc cgtggctctc agctgtcaat gtgcactctg ccgccgcagc accactgact 720  
 gcgggggtcc caaggaccac cccttgacct gtgatgacct ccgcttccag gcctcctctt 780  
 cctcaaaggc ccctcccccc agccttccaa gtccatcccc actcccgggg ccctcggaca 840  
 ccccgatcct ccacacaataa a 861

<210> 7  
 <211> 861  
 <212> DNA  
 <213> human  
 <220>  
 <223>  $\beta$ hCG  $\beta$ 6e cDNA-Sequenz

<400>7  
 agcacttttc tcgggtcacg gcctcctcct gggtcccaag accccaccat aggcagaggc 60  
 aggccttcct acaccctact ctctgtgct ccagcctcga ctagtcccta rcactcgacg 120  
 actgagtctc agaggtcact tcaccgtggt ctccgcctca tccttggygc tagaccactg 180  
 aggggagagg actgggggtgc tccgctgagc cactcctgtg cctccctggc cttgtctact 240  
 tctcgcccc cgaagggtta gtgtcsagct cactccagca tcctacaacc tcctgggtggc 300  
 cttgmcgccc ccacaamccc gaggtatraa gccaggtaca ccaggcaggg gacgcaccaa 360  
 ggatggagat gttccagggg ctgctgctgt tgctgctgct gagcatgggc gggacatggg 420  
 catccargga gmyrcttcgg ccacgggtgcc gccccatcaa tgccaccctg gctgtggaga 480  
 aggagggctg ccccggtgtg atcacctgca acaccaccat ctgtgccggc tactgcccc 540  
 ccatgacccg cgtgctgcag ggggtcctgc cggccctgcc tcagggtggg tgcaactacc 600  
 gcgatgtgcg cttcgagtc atccggctcc ctggctgccc gcgcggcgtg aaccccggtg 660  
 tctcctacgc cgtggctctc agctgtcaat gtgcaactct cgcgcgcagc accactgact 720  
 gcgggggtcc caaggaccac cccttgacct gtgatgacct cgccttcag gcctcctctt 780  
 cctcaaaggc ccctcccccc agccttccaa gtccatcccg actcccgggg ccctcggaca 840  
 ccccgatcct ccacaataa a 861

<210> 8  
 <211> 20  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 8 ( $\beta$ hCG  $\beta$ 5,  $\beta$ 8,  $\beta$ 3)

<400> 8  
 catgggcatc caaggagccg 20

<210> 9  
 <211> 20  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 9 ( $\beta$ hCG  $\beta$ 6)

<400> 9  
 catgggcatc caaggagcca 20

<210> 10  
 <211> 20  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 10 ( $\beta$ hCG  $\beta$ 7,  $\beta$ 6e)

<400> 10  
 catgggcatc cagggatg 20

<210> 11  
 <211> 17  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 11 (Gesamt-  $\beta$ hCG)

<400> 11  
 tcgggggtgtc cgagggc 17

<210> 12  
 <211> 20  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 12 ( $\beta$ hCG  $\beta$ 5,  $\beta$ 8,  $\beta$ 3)

<400> 12  
 gatgaccccc gcttccagga 20

<210> 13  
 <211> 20  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 13 ( $\beta$ hCG  $\beta$ 7,  $\beta$ 6)

<400> 13  
 gatgaccccc cgttccaggc 20

<210> 14  
 <211> 17  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 14 (Gesamt- $\beta$ hCG)

<400> 14  
 tcgggtcacg gcctcct 17

<210> 15  
 <211> 22  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 15 ( $\beta$ hCG  $\beta$ 5,  $\beta$ 8,  $\beta$ 3)

<400> 15  
 acggcctcct cctggctccc ag 22

<210> 16  
 <211> 22  
 <212> DNA  
 <213> artificial  
 <220>  
 <223> Primer 16 ( $\beta$ hCG  $\beta$ 7,  $\beta$ 6,  $\beta$ 6e)

<400> 16  
 acggcctcct cctgggtccc aa 22

<210> 17  
 <211>..165  
 <212> PRT  
 <213> human  
 <220>  
 <223>  $\beta$ hCG  $\beta$ 6eI (with Lys in Pos 2)

<400> 17  
 Met Glu Met Phe Gln Gly Leu Leu Leu Leu Leu Leu Ser Met Gly  
 -20 -15 -10 -5  
 Gly Thr Trp Ala Ser **Lys** Glu **Met** Leu Arg Pro Arg Cys Arg Pro Ile  
 .. 1 5 10  
 Asn Ala Thr Leu Ala Val Glu Lys Glu Gly Cys Pro Val Cys Ile Thr  
 15 .. 20 25  
 Val Asn Thr Thr Ile Cys Ala Gly Tyr Cys Pro Thr Met Met Arg Val  
 30 .. 35 40  
 Gly Val Leu Gln Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr Arg  
 45 .. 50 55 60  
 Asp Val Arg Phe Glu Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val  
 65 70 75  
 Asn Pro Val Val Ser Tyr Ala Val Ala Leu Ser Cys Gln Cys Ala Leu  
 80 85 90  
 Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp His Pro Leu  
 95 100 105  
 Thr Cys Asp Asp Pro Arg Phe Gln **Ala** Ser Ser Ser Ser Lys Ala Pro  
 110 115 120  
 Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly Pro Ser Asp Thr  
 125 130 135 140  
 Pro Ile Leu Pro Gln  
 145

<210> 18  
 <211>..165  
 <212> PRT  
 <213> human  
 <220>  
 <223>  $\beta$ hCG  $\beta$ 6eII (with Arg in Pos 2)

<400> 18  
 Met Glu Met Phe Gln Gly Leu Leu Leu Leu Leu Leu Ser Met Gly  
 -20 -15 -10 -5  
 Gly Thr Trp Ala Ser **Arg** Glu **Met** Leu Arg Pro Arg Cys Arg Pro Ile  
 .. 1 5 10  
 Asn Ala Thr Leu Ala Val Glu Lys Glu Gly Cys Pro Val Cys Ile Thr  
 15 .. 20 25  
 Val Asn Thr Thr Ile Cys Ala Gly Tyr Cys Pro Thr Met Met Arg Val  
 30 .. 35 40

Gly Val Leu Gln Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr Arg  
45           ..                 50                             55                             60

Asp Val Arg Phe Glu Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val  
65 70 75

Asn Pro Val Val Ser Tyr Ala Val Ala Leu Ser Cys Gln Cys Ala Leu  
80 85 90

Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp His Pro Leu  
95 100 105

Thr Cys Asp Asp Pro Arg Phe Gln **Ala** Ser Ser Ser Ser Lys Ala Pro  
110 115 120

Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly Pro Ser Asp Thr  
125 130 135 140

Pro Ile Leu Pro Gln  
145